IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method of fabricating a set of semiconducting nanowires having a desired wire diameter, the method comprising the ~~steps~~ acts of:

providing a set of pre-fabricated semiconducting nanowires, at least one pre-fabricated semiconducting nanowire having a wire diameter larger than the desired wire ~~diameter, and~~ diameter;

reducing the wire diameter of the at least one pre-fabricated nanowire by etching, the etching being induced by electromagnetic radiation which is absorbed by the at least one pre-fabricated ~~nanowire,~~ nanowire;

selecting a minimum wavelength of the electromagnetic radiation ~~being chosen~~ such that the absorption of the at least one

pre-fabricated nanowire ~~being~~ is significantly reduced when the at least one pre-fabricated nanowire reaches the desired wire ~~diameter~~ diameter; and

stopping the electromagnetic radiation when continuing the electromagnetic radiation does not substantially change the desired wire diameter.

2. (Currently Amended) ~~A~~ The method as claimed in claim 1, wherein:

a radiation source is used which emits the electromagnetic radiation inducing the etching and electromagnetic radiation having a wavelength shorter than the minimum wavelength, and

the electromagnetic radiation emitted by the radiation source is spectrally filtered for substantially reducing electromagnetic radiation having a wavelength shorter than the minimum wavelength.

3. (Currently Amended) ~~A~~ The method as claimed in claim 1, wherein prior to the ~~step of~~ reducing act, the wire diameter substantially all the pre-fabricated semiconducting nanowires have

a diameter larger than or equal to the desired wire ~~diameter~~ diameter.

4. (Currently Amended) ~~A~~ The method as claimed in claim 1, wherein the light inducing the etch treatment is linearly polarized along an ~~axis~~ axis.

5. (Currently Amended) ~~A~~ The method as claimed in claim 1, wherein the light inducing the etch treatment has a first component being linearly polarized along a first axis and a second component being linearly polarized along a second axis forming an angle larger than zero with the first ~~axis~~ axis.

6. (Currently Amended) ~~A~~ The method as claimed in claim 5, the first component has a first spectrum with a first minimum wavelength and the second component has a second spectrum with a second minimum wavelength different from the first minimum wavelength.

7. (Currently Amended) ~~A~~ The method as claimed in claim 5, wherein the first component has a first intensity and the second component has a second intensity different from the first intensity.

8. (Currently Amended) ~~A~~ The method as claimed in claim 1, wherein the desired wire diameter comprises zero.

9. (Currently Amended) ~~A~~ The method as claimed in claim 8, wherein the light inducing etching of nanowires having a desired wire diameter of zero is linearly polarized.

10. (Currently Amended) ~~A~~ The method as claimed in claim 1, wherein the pre-fabricated semiconducting nanowires are supported by a ~~substrate~~ substrate.

11. (Currently Amended) ~~A~~ The method as claimed in claim 10, wherein the substrate comprises an electrical conductor, the pre-fabricated semiconducting nanowires being electrically conductively

connected to the electrical ~~conductor~~ conductor.

12. (Currently Amended) ~~A~~ The method as claimed in claim 10, wherein the substrate has a surface constituted by a first part supporting the pre-fabricated semiconducting nanowires and ~~another~~ a second part being free from the ~~part at~~ first part, at least the ~~other~~ second part being etch resistant.

13. (Currently Amended) ~~A~~ The method as claimed in claim 12, wherein the substrate comprises a first layer which is not etch resistant, and a second layer which is etch resistant, the second layer constituting the ~~other~~ second part of the ~~surface~~ surface.

14. (Currently Amended) ~~A~~ The method as claimed in claim 13, wherein the second layer is connected to the first layer by a chemical bond.

15. (Currently Amended) ~~A~~ The method as claimed in claim 13, wherein the second layer is composed of one or more materials

selected from alkyltriethoxysiloxane and alkyltrimethoxysiloxane.

16. (Currently Amended) ~~A~~ The method as claimed in claim 10, wherein the ~~step of~~ providing ~~the pre-fabricated semiconducting nanowires~~ act comprises the following ~~sub-steps~~ acts :

providing the substrate, a surface of the substrate being etchable, and

growing semiconducting nanowires on the surface of the substrate, the grown semiconducting nanowires being the pre-fabricated semiconducting nanowires,

and after the ~~step of~~ providing ~~the pre-fabricated semiconducting nanowires~~ act and prior to the ~~step of~~ reducing ~~the wire diameter of the at least one pre-fabricated nanowire by etching the~~ act, exposed surface of the substrate is covered by an etch resistant ~~layer~~ layer.

17. (Currently Amended) ~~A~~ The method as claimed in claim 10, wherein the pre-fabricated semiconducting nanowires are distributed over the surface, a first part of the surface being irradiated by

light for inducing the etch treatment, pre-fabricated semiconducting nanowires in a second part of the surface being prevented from etching.

18. (Currently Amended) ~~A~~ The method as claimed in claim 10, wherein the pre-fabricated semiconducting nanowires are distributed over the surface, a first part of the surface area being irradiated by a first light intensity, a second part of the surface free from the first part of the surface being irradiated by a second light intensity smaller than the first light intensity.

19. (Currently Amended) ~~A~~ The method as claimed in claim 10, wherein the pre-fabricated semiconducting nanowires are distributed over the surface, a first part of the surface being irradiated by light having a first minimum wavelength, a second part of the surface being irradiated by light having a second minimum wavelength different from the first minimum wavelength.

Claims 20-29 (Canceled)

30.(New) The method of claim 1, further comprising the acts of:

doping a first part of the at least one pre-fabricated semiconducting nanowire to form a p-doped nanowire; and

doping a second part of the at least one pre-fabricated semiconducting nanowire to form a n-doped nanowire;

wherein the reducing act reduces a diameter of the p-doped nanowire to be smaller than a diameter of the n-doped nanowire so that the p-doped nanowire emits radiation of reduced wavelength as compared to a p-doped nanowire with an unreduced diameter, and the n-doped nanowire provides higher current as compared to an n-doped nanowire with a reduced diameter.